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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,679	10/19/2000	Paul Fulton	3COM-2741.WHD.US.P	7209

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EXAMINER	
WARE, CICELY Q	

ART UNIT	PAPER NUMBER
2634	4

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/693,679	FULTON, PAUL	
	Examiner	Art Unit	
	Cicely Ware	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 7-13 and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Natori (US Patent 6,363,245).

(1) With regard to claim 1, Natori discloses in (Fig. 3) a method indicating reception performance of a wireless signal at a radio frequency peripheral component card of a computer system (1, 2b), said method comprising the steps of: receiving said wireless signal at the electronic device (10); demodulating said wireless signal; determining an error rate of a digital data portion of said wireless signal (Fig. 1 (14)); and indicating a quality level of reception (36a, 35) of said wireless signal at said electronic device based on said error rate (abstract, col. 2, lines 7-23, col. 3, lines 33-38, col. 4, lines 12-24, col. 5, lines 32-67, col. 6, lines 1-11).

(2) With regard to claim 2, claim 2 inherits all the limitations of claim 1. Natori further discloses wherein said quality level of reception is indicated via a light emitting device (col. 2, lines 39-50, col. 7, lines 7-12).

(3) With regard to claim 3, claim 3 inherits all the limitations of claim 1. Natori further discloses the step of linearly translating said error rate into said quality level (col. 6, lines 55-67, col. 7, lines 1-2).

(4) With regard to claim 7, claim 7 inherits all the limitations of claim 1. Furthermore, Natori further discloses wherein said quality level is linearly proportional to said error rate of said wireless signal (col. 7, lines 16-39, col. 8, lines 29-44).

(5) With regard to claim 8, claim 8 inherits all the limitations of claim 1. Furthermore, Natori further discloses the step of adaptively updating said step(c of determining said error rate and said step d) of indicating said quality level (col. 6, lines 12-44, col. 7, lines 41-55).

(6) With regard to claim 9, claim 9 inherits all the limitations of claim 1. Furthermore, Natori further discloses in the steps of recording a history of said quality level with respect to another variable; identifying a maximum quality level; and indicating when said quality is at said maximum level (col. 6, lines 12-49, 60-67, col. 7, lines 1-2, 15-33).

(7) With regard to claim 10, claim 10 inherits all the limitations of claim 1. Furthermore, Natori discloses in (Fig. 2) the steps of providing feedback to control reception, said feedback relate to said quality level of reception; and adjusting said reception based on said feedback, thereby improving said quality level of said reception (col. 5, lines 17-54, col. 6, lines 12-44).

(8) With regard to claim 11, claim 11 inherits all the limitations of claim 1. Natori further discloses in (Fig. 1) a receiver (13); a processor (32), said processor coupled to

said receiver; and a computer readable memory unit (33), said computer readable memory unit coupled to said processor, said computer readable memory unit containing program instructions stored therein that execute (Fig. 2), via said processor, a method for providing a quality level of reception (col. 4, lines 12-50).

(9) With regard to claim 12, claim 12 inherits all the limitations of claims 11 and 2.

(10) With regard to claim 13, claim 13 inherits all the limitations of claims 11 and 3.

(11) With regard to claim 17, claim 17 inherits all the limitations of claims 11 and 7.

(12) With regard to claim 18, claim 18 inherits all the limitations of claims 11 and 8.

(13) With regard to claim 19, claim 19 inherits all the limitations of claims 11 and 9.

(14) With regard to claim 20, claim 20 inherits all the limitations of claims 11 and 10.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 4-6, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natori (US Patent 6,363,245) as applied to claims 1 and 11 above, in view of Erekson (US Patent 6,622,018).

(1) With regard to claim 4, claim 4 inherits all the limitations of claim 1. However Natori does not disclose wherein said error rate is a packet error rate.

However Erekson discloses wherein said error rate is a packet error rate (col. 7, lines 27-36, col. 8, lines 1-3).

Therefore it would have been obvious to one of ordinary skill in the art to modify the Natori to incorporate wherein the error rate is a packet error rate in order to provide point to point and point-to-multi-point connections where several piconets can be established and linked together in a "scatternet", where each piconet is identified by a different frequency hopping sequence and all devices participating on the same piconet are synchronized to their respective hopping sequence and through a packet-switching protocol slots can be reserved for synchronous packets (Erekson, col. 5, lines 15-20, col. 7, lines 28-33)

(2) With regard to claim 5, claim 5 inherits all the limitations of claim 4. Erekson further discloses wherein the packet error rate is determined by a cyclic redundancy code (CRC) algorithm (col. 7, lines 27-36, 38-41).

(3) With regard to claim 6, claim 6 inherits all the limitations of claim 4. Erekson further discloses wherein the packet error rate is determined by a forward error correction algorithm (col. 7, lines 27-36, 35-37).

(4) With regard to claim 14, claim 14 inherits all the limitations of claims 11 and 4. Erekson further discloses the radio frequency peripheral component card (col. 7, lines 64-67, col. 8, lines 1-3).

(5) With regard to claim 15, claim 15 inherits all the limitations of claims 11 and 5. Erekson further discloses the radio frequency peripheral component card (col. 7, lines 64-67, col. 8, lines 1-3).

(6) With regard to claim 16, claim 16 inherits all the limitations of claims 11 and 6. Erekson further discloses the radio frequency peripheral component card (col. 7, lines 64-67, col. 8, lines 1-3).

5. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natori (US Patent 6,363,245) in view of Vaisanen et al. (US Patent 6,560,443).

(1) With regard to claim 21, claim 21 inherits all the limitations of claim 1. However Natori does not disclose a computer readable medium containing therein computer readable codes for causing a radio frequency peripheral component card of a computer system to implement a method of managing multipath signals.

However Vaisanen et al. discloses a computer readable medium containing therein computer readable codes for causing a radio frequency peripheral component card of a computer system to implement a method of managing multipath signals (col. 1, lines 37-66, col. 3, lines 33-39).

Therefore it would have been obvious to one of ordinary skill in the art to modify Natori to incorporate a computer readable medium containing therein computer

readable codes for causing a radio frequency peripheral component card of a computer system to implement a method of managing multipath signals in order for the medium access control protocol to be fully distributed or controlled by a central coordinated function housed in the access point (Vaisanen et al., col. 1, lines 48-50).

(2) With regard to claim 22, claim 22 inherits all the limitations of claim 21. Natori further discloses wherein said quality level of reception is indicated via a light emitting device (col. 2, lines 39-50, col. 7, lines 7-12).

(3) With regard to claim 23, claim 23 inherits all the limitations of claim 21. Natori further discloses the step of linearly translating said error rate into said quality level (col. 6, lines 55-67, col. 7, lines 1-2).

6. Claims 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natori (US Patent 6,363,245) in combination with Vaisanen et al. (US Patent 6,560,443) as applied to claim 21, in further view of Erekson (US Patent 6,622,018).

(1) With regard to claim 24, claim 24 inherits all the limitations of claim 21. Natori in combination with Vaisanen et al. do not disclose wherein said error rate is a packet error rate.

However Erekson discloses wherein said error rate is a packet error rate (col. 7, lines 27-36, col. 8, lines 1-3).

Therefore it would have been obvious to one of ordinary skill in the art to modify the inventions of Natori in combination with Vaisanen et al. to incorporate wherein the error rate is a packet error rate in order to provide for baseband processing and

functions such as quality of service, asynchronous transfers, synchronous transfers, audio coding and encryption (Erekson, col. 7, lines 42-46)

(2) With regard to claim 25, claim 25 inherits all the limitations of claim 24. Erekson further discloses wherein the packet error rate is determined by a cyclic redundancy code (CRC) algorithm (col. 7, lines 27-36, 38-41).

(3) With regard to claim 26, claim 26 inherits all the limitations of claim 24. Erekson further discloses wherein the packet error rate is determined by a forward error correction algorithm (col. 7, lines 27-36, 35-37).

(4) With regard to claim 27, claim 27 inherits all the limitations of claim 21. Furthermore, Natori further discloses wherein said quality level is linearly proportional to said error rate of said wireless signal (col. 7, lines 16-39, col. 8, lines 29-44).

(5) With regard to claim 28, claim 28 inherits all the limitations of claim 21. Furthermore, Natori further discloses the step of adaptively updating said step(c of determining said error rate and said step d) of indicating said quality level (col. 6, lines 12-44, col. 7, lines 41-55).

(6) With regard to claim 29, claim 29 inherits all the limitations of claim 21. Furthermore, Natori further discloses in the steps of recording a history of said quality level with respect to another variable; identifying a maximum quality level; and indicating when said quality is at said maximum level (col. 6, lines 12-49, 60-67, col. 7, lines 1-2, 15-33).

(7) With regard to claim 30, claim 30 inherits all the limitations of claim 21. Furthermore, Natori discloses in (Fig. 2) the steps of providing feedback to control

reception, said feedback relate to said quality level of reception; and adjusting said reception based on said feedback, thereby improving said quality level of said reception (col. 5, lines 17-54, col. 6, lines 12-44).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 703-305-8326. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw

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